

CONTINUOUS MOLDING OF FASTENER PRODUCTS AND THE LIKE
AND PRODUCTS PRODUCED THEREBY

Abstract of the Disclosure

Improvements are disclosed for an apparatus for continuously molding small fastener elements integral with a base web from a flowable resin. The apparatus comprises a cylindrical mold roll rotatable about an axis and defining small fastener element-shaped mold cavities in the surface thereof, and pressure-applying means to apply operating pressure to force the resin into the cavities at a pressure zone. The pressure-applying means and mold roll define a mold gap therebetween for forming the base web. The advantageous use of relatively long mold rolls, to produce a correspondingly wide web, and the use of higher molding pressures, e.g. to form very small fastener elements, is enabled by various improvements, including means to maintain the mold gap at a desired thickness profile across the length of the molding region of the mold roll under operating pressure. In some cases the pressure-applying means includes a pressure roll, in other cases it includes a resin nozzle assembly or pressure head. In some other cases it includes a belt. Various control schemes are also disclosed, as are means to provide cooling. In some particularly useful embodiments, at least one of the rolls of the apparatus has a resiliently deformable surface. Methods of molding fastener elements directly on a sheet material, such as sandpaper, are also disclosed, as well as methods for laminating.

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